

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 2-9 and 11-13 are pending; Claims 2, 4, 5, 9, 11, and 12 are amended; Claim 13 is added, and Claims 1 and 10 are canceled without prejudice or disclaimer. Support for the amendments to Claims 11 and 12 and new Claim 13 is found, for example, in original Claims 1 and 10, and in the specification at pages 12-16, and 33-35. It is respectfully submitted that no new matter is added by this amendment.

In the outstanding Office Action, Claims 10-12 were rejected under 35 U.S.C. § 102(b) as unpatentable over Hartman (U.S. Pat. No. 5,224,166); and Claims 1-9 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hartman in view of Alexander (U.S. Pat. No. 6,188,602).

With respect to the rejection of Claim 10 as anticipated by Hartman, and Claim 1 as unpatentable over Hartman in view of Alexander, Applicants respectfully submit that the cancellation of Claims 1 and 10 render these grounds of rejection moot.

With respect to new Claim 13, Applicants respectfully submit that new Claim 13 patentably distinguishes over Hartman and Alexander, taken alone or in proper combination. New Claim 13 recites, *inter alia*, “the processor core continues executing the instructions during the key registration by the key management unit and starts to execute the program by using the corresponding instruction key after receiving notification of the completion of the key registration from the key management unit.” Applicants note that this feature of Claim 13 improves system performance and response performance.¹

Neither Hartman nor Alexander describes or suggests the above-noted element of new Claim 13.

¹ Specification, page 16, lines 9-13.

Therefore, Applicants respectfully submit that Claim 13 (and Claims 2-9) are in condition for allowance.

Moreover, with respect to the features of Claims 2 and 3, Applicants respectfully submit that Claims 2 and 3 further patentably distinguish over Hartman and Alexander. Claim 2 recites, *inter alia*, “the key management unit is also configured to carry out a flashing of the cache line stored in correspondence to the specific program identifier on the cache memory when the key management unit rewrites the instruction key corresponding to the specific program identifier in the key table.”

The outstanding Office Action does not cite to any teachings within either Hartman or Alexander that anticipate this feature. The outstanding Office Action, in the Response to Arguments Section, fails to address the arguments presented in the Amendment filed on August 17, 2005 pertaining to the claimed “flashing of the cache line stored in correspondence to the specific program identifier.”² Furthermore, when rejecting Claim 2 at pages 8 and 9 of the outstanding Office Action, the outstanding Office Action merely cites to a portion of Hartman that states “non-encrypted data and instructions are directly stored in the internal memory cache.” This does not describe or suggest the claimed “the key management unit is also configured to carry out a flashing of the cache line stored in correspondence to the specific program identifier on the cache memory when the key management unit rewrites the instruction key corresponding to the specific program identifier in the key table.”

Furthermore, Claim 3 further describes the claimed “flashing,” and patentably distinguishes over Hartman for at least the reasons stated for Claim 2.

Furthermore, Alexander does not cure the above-noted deficiencies in Hartman with respect to Claims 2 and 3. The outstanding Office Action cites to portions of Alexander that describe allowing write access to the flash memory, resetting the flash memory, and locking

² See, Office Action, page 3, paragraph 4.

the flash memory.³ Alexander provides no description or suggestion of flashing of the cache line stored in correspondence to the specific program identifier on the cache memory when the key management unit rewrites the instruction key corresponding to the specific program identifier in the key table.

Thus, Applicants respectfully submit that Claims 2 and 3 further patentably distinguish over Hartman and Alexander, taken alone or in proper combination, for at least the reasons stated above.

With respect to the rejection of Claim 11 as anticipated by Hartman, Applicants respectfully submit that the amendment to Claim 11 overcomes this ground of rejection. Claim 11 recites, *inter alia*, “the feedback key is used in obtaining a feedback information by encrypting the instruction key when the feedback information is to be written into the external memory at a time of a context saving.” Applicants note that “meta-level information” is removed from Claim 11. Hartman does not describe or suggest the above-noted element of Claim 11.

It appears that the outstanding Office Action is relying upon the “media master key” of Hartman to describe the claimed “feedback key.” However, Hartman only discloses that the media master key is used in the encryption or decryption of information in a memory segment and that segment registers indicate their encryption state.⁴ Hartman does not disclose or suggest that the master media key is used in obtaining a feedback information by encrypting the instruction key when the feedback information is to be written into the external memory at a time of a context saving.

Furthermore, Alexander does not cure the above-noted deficiency in Hartman.

³ Alexander, col. 1, lines 60-65, and col. 2, lines 22-32.

⁴ Hartman, col. 6, lines 11-15.

In view of the above-noted distinction, Applicants respectfully submit that amended Claim 11 patentably distinguishes over Hartman and Alexander, taken alone or in proper combination.

With respect to the rejection of Claim 12 as anticipated by Hartman, Applicants respectfully submit that the amendment to Claim 12 overcomes this ground of rejection. Amended Claim 12 recites, *inter alia*, “the perpetuation flag indicates whether or not to permit a context saving in which the instruction key is encrypted by using a prescribed secret key of the microprocessor and written into the external memory.” Hartman does not describe or suggest at least this element of amended Claim 12.

It appears that the outstanding Office Action is relying upon the “set flag” of Hartman to describe the claimed “perpetuation flag.”⁵ Hartman discloses that if a set flag is set in field 60 of a segment register 56, “an instruction is enabled to call any data or instruction, irrespective of whether the data/instruction is from an encrypted or non-encrypted memory segment.”⁶ The set flag in Hartman does not indicate whether or not to permit a context saving in which the instruction key is encrypted by using a prescribed secret key of the microprocessor and written into the external memory.

Furthermore, Alexander does not cure the above-noted deficiency in Hartman.

In view of the above-noted distinction, Applicants respectfully submit that amended Claim 12 patentably distinguishes over Hartman and Alexander, taken alone or in proper combination.

⁵ Office Action, page 5-6.

⁶ Hartman, col. 7, lines 40-44.

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Consequently, in view of the foregoing discussion and present amendments, it is respectfully submitted that this application is in condition for allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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